

Title (en)

Apparatus and method for assembling and aligning a plurality of optical fibers

Title (de)

Vorrichtung und Verfahren zur Zusammenfassung und Ausrichtung einer Mehrheit von optischen Faser

Title (fr)

Dispositif et méthode pour l'assemblage et l'alignement d'une pluralité de fibres optiques

Publication

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Application

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Abstract (en)

Embodiments of the invention include an optical uniform spacing assembly (10) for aligning a multipitch plurality of optical fibers (12) into a uniform pitch linear array of optical fibers. The assembly (10) includes an organizer body (16) having a slot (29) formed therein that extends longitudinally along the body. A portion of the slot has a width dimensioned to allow only one optical fiber at a time therethrough simultaneously and a depth dimensioned to align a multipitch plurality of optical fibers into a uniform pitch linear array of optical fibers. The assembly provides sufficient alignment for transitioning from, for example, an optical fan-out arrangement such as a plurality of individual optical fibers to, for example, an optical fan-in arrangement such as a ribbon cable arrangement. The assembly provides a compact, easily assembled apparatus and method for overcoming size mismatch and other conventional problems associated with transitioning between differing arrangements. Alternatively, the spacing assembly (10) includes a transition assembly (18) coupled to the front end thereof for providing additional alignment to, for example, a multipitch array of optical fibers, prior to their alignment within the organizer body. Also, alternatively, an optical device such as a multifiber optical connector is coupled to the back end of the spacing assembly. Suitable multifiber connectors include, for example, a MT connector, a MAC connector, or a LMC connector. <IMAGE>

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Cited by

EP2482108A1; CN104335091A; US7186031B2; US9651741B2; WO2012104148A1; WO2005040879A1; EP3543756A1; US11305897B2;
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